This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) An internet based access point management system accessible by at least one internet web browser configured to communicate one or more requests comprising modifying operation of one or more computer managed openings located at one or more facilities, each facility having at least one access point, an access point referring to a location containing a selectively controllable opening, the internet based access point management system comprising:

at least one computer processor;

a web server operative with the at least one computer processor and ~~the web server~~ being configured to receive and respond to the one or more requests communicated from the at least one web browser;

a database server operative with the at least one computer processor;

an application server operative with the at least one computer processor and being configured to communicate with the web server and the database server for processing the one or more requests, the processing of the one or more requests comprising formulating one or more system commands in response to the one or more requests; and

a communication link configured to connect the application server and the one or more computer managed openings for communication therebetween, the communication ~~link~~ comprising the one or more system commands which modify operation of the one or more computer managed openings;

wherein at least one of the one or more computer managed openings comprises a computer being selectively interconnected with at least one electronically controlled locking device, and wherein the access point is selectively lockable using at least one of the at least one electronically controlled locking device.

2. (Currently amended) The internet based access point management system of claim 1 wherein:

~~the one or more computer managed openings comprise an access point each connected to~~ each electronically controlled locking device comprises a controller and a lock;

the communication link comprises:

a mail server operative with the at least one computer processor and being configured for communication of electronic messages in electronic mail format over the internet;

a local mail server or mail client operative with another computer processor and being configured to receive the electronic messages in electronic mail format over the internet. from the mail server; and

a local gateway configured to communicate with the local mail server and the controllers; and

the application server is configured to incorporate system commands into electronic messages in electronic mail format and to communicate with the mail server.

3. (Currently amended) The internet based access point management system of claim 2 wherein each controller comprises:

a power supply;

a transceiver for communication with the local gateway;

a processor energized by the power supply and connected in circuit with the transceiver;

non-volatile memory connected in circuit with the processor;
a clock connected in circuit with the processor;
an input port for receiving user input; and
an output port for connection to ~~a locking device~~ the lock, the ~~locking device~~ lock being mechanically connected to the access point.

19 4. (Original) The internet based access point management system of claim 1 wherein the system commands modify operation of the one or more computer managed openings in order to perform at least one of the functions selected from the group consisting of assigning a user's access credentials, grouping a user's access privilege with a respective access point and scheduling time events.

A1 20 5. (Currently amended) The internet based access point management system of claim 1 wherein the processing of the one or more requests by the application server also comprises assembling a response for communication to the web server.

4 6. (Original) The internet based access point management system of claim 2 wherein the database server stores one or more of the following: individual local gateway electronic mail address, software components, gateway configuration database, individual computer managed opening identification, CMO firmware, CMO configuration and gateway and controller onboard databases.

5 7. (Original) The internet based access point management system of claim 6 wherein the database comprises:
a user database comprising user group layers, user groups related to particular user group layers and users related to particular user groups;
an access type database comprising readers;
an access point database comprising access point groups with particular access points related thereto and to a computer managed opening type;
an operator database comprising operators being related to user group layers and particular user groups, the operators also being related to access point groups and access points;
a local gateway database comprises computer managed opening type; and
wherein the users are related to a particular access type and the user groups are related to a particular access point, the computer managed opening type is related to particular readers, configuration database and time management of each access point and/or access point grouping.

6 8. (Original) The internet based access point management system of claim 2 wherein the local gateway comprises a gateway server component and an electronic mail agent component.

7 9. (Original) The internet based access point management system of claim 2 wherein the local gateway converts the electronic messages from the electronic mail format to LonTalk™ protocol.

8 10. (Original) The internet based access point management system of claim 2 wherein the local gateway converts the electronic messages from the electronic mail format to another format comprising a command string comprising a command identification, a length of one or more commands and at least one command.

9 11. (Original) The internet based access point management system of claim 2 wherein the local gateway further comprises an encryption/decryption device for encrypting/decrypting the electronic messages in electronic mail format and further comprising:

an encryption/decryption server operative with the at least one computer processor for encrypting/decrypting the electronic messages in electronic mail format.

10 12. (Original) The internet based access point management system of claim 2 wherein the electronic messages in electronic mail format comprise:

a subject comprising a message index; and

attached files comprising at least one command file and at least one database table file.

11 13. (Original) The internet based access point management system of claim 10 wherein the local gateway further comprises an encryption/decryption device for encrypting/decrypting at least one database table file and/or at least one database table file and further comprising:

an encryption/decryption server operative with the at least one computer processor for encrypting/decrypting at least one command file and/or at least one database table file;

12 14. (Original) The internet based access point management system of claim 11 wherein the command file comprises a consecutive byte string absent delimiters.

13 15. (Original) The internet based access point management system of claim 12 wherein the consecutive byte string comprises a transaction identification, a number of commands in the byte string and a command body.

14 16. (Original) The internet based access point management system of claim 13 wherein the command body comprises a length of the command body, a command identification, computer managed opening identification, computer managed opening sub-identification and at least one command parameter.

15 17. (Original) The internet based access point management system of claim 2 wherein the one or more computer managed openings are configured to generate reply messages which are converted into electronic mail format by the local gateway.

16 18. (Original) The internet based access point management system of claim 17 wherein the electronic mail format of the reply messages comprises:

a subject which comprises at least one of a transaction identification or a message index;

a contents which comprises a predefined success or failure indication; and

attached files comprising at least one database table file.

17 19. (Original) The internet based access point management system of claim 18 wherein the local gateway further comprises an encryption/decryption device for encrypting/decrypting at least one database table file and/or at least one database table file and further comprising:

an encryption/decryption server operative with the at least one computer processor for encrypting/decrypting at least one command file and/or at least one database table file.

18 20. (Original) The internet based access point management system of claim 1 wherein the at least one computer processor comprises three computer processors and wherein each of the web server, database server and application server each are operative with a separate one of the three computer processors.

21. (Currently amended) An internet based access point management system, at least a part of which resides on a computer readable medium and is accessible by at least one internet web browser configured to communicate one or more requests comprising modifying an operation of one or more computer managed openings located at one or more facilities, each facility having at least one access point, an access point referring to a location containing a selectively controllable opening, the internet based access point management system comprising:

a web server configured to receive and respond to the one or more requests communicated from the at least one web browser;

a database server;

an application server configured to communicate with the web server and the database server for processing the one or more requests, the processing of the one or more requests comprising formulating one or more system commands in response to the one or more requests; and

a communication link configured to connect the application server and the one or more computer managed openings for communication therebetween, the communication comprising the one or more system commands which modify operation of the one or more computer managed openings;

wherein at least one of the one or more computer managed openings comprises a computer being selectively interconnected with at least one electronically controlled locking device, and wherein the selectively controllable opening is selectively lockable using at least one of the at least one electronically controlled locking device.

22. (Currently amended) The internet based access point management system of claim 21 wherein:

~~the one or more computer managed openings comprise an access point each connected to~~ each electronically controlled locking device comprises a controller;

the communication link comprises:

a mail server operative with ~~the~~ at least one computer processor and configured for communication of electronic messages in electronic mail format over the internet;

a local mail server or mail client operative with ~~another~~ at least one computer processor and configured to receive the electronic messages in electronic mail format over the internet from the mail server; and

a local gateway configured to communicate with the local mail server and the controllers; and

the application server is configured to incorporate system commands into electronic messages in electronic mail format and to communicate with the mail server.

23. (Currently amended) The internet based access point management system of claim 22 wherein each electronically controlled locking device also comprises a lock that is actuatable using the controller, and wherein each controller comprises:

a power supply;

a transceiver for communication with the local gateway;

a processor energized by the power supply and connected in circuit with the transceiver;

non-volatile memory connected in circuit with the processor;

a clock connected in circuit with the processor;

an input port for receiving user input; and

an output port for connection to ~~a locking device~~ the lock, the ~~locking device~~ lock being mechanically connected to the access point.

24. (Original) The internet based access point management system of claim 22 wherein the local gateway comprises a gateway server component and an electronic mail agent component.

25. (Original) The internet based access point management system of claim 24 wherein the local gateway converts the electronic messages from the electronic mail format to another format comprising a command string comprising a command identification, a length of one or more commands and at least one command.

26. (Original) The internet based access point management system of claim 22 wherein the electronic messages in electronic mail format comprise:

a subject comprising a message index; and

attached files comprising at least one command file and at least one database table file.

27. (Original) The internet based access point management system of claim 26 wherein the local gateway further comprises an encryption/decryption device for encrypting/decrypting at least one command file and/or at least one database table file and further comprising:

an encryption/decryption server for encrypting/decrypting at least one command file and/or at least one database table file.

28. (Original) The internet based access point management system of claim 27 wherein the command file comprises a consecutive byte string absent delimiters.

29. (Original) The internet based access point management system of claim 28 wherein the consecutive byte string comprises a transaction identification, a number of commands in the consecutive byte string and a command body.

30. (Original) The internet based access point management system of claim 29 wherein the command body comprises a length of the command body, a command identification, computer managed opening identification, computer managed opening sub-identification and at least one command parameter.

31. (Original) The internet based access point management system of claim 22 wherein the one or more computer managed openings are configured to generate reply messages which are converted into electronic mail format by the local gateway.

32. (Original) The internet based access point management system of claim 31 wherein the electronic mail format of the reply messages comprises:

a subject which comprises at least one of a transaction identification or a message index;

a contents which comprises a predefined success or failure indication; and attached files comprising at least one database table file.

33. (Original) The internet based access point management system of claim 32 wherein the local gateway further comprises an encryption/decryption device for encrypting/decrypting at least one database table file and/or at least one database table file and further comprising:

an encryption/decryption server operative with the at least one computer processor for encrypting/decrypting at least one command file and/or at least one database table file.

34. (Currently amended) An internet based access point management system accessible by at least one internet web browser communicating one or more requests for modifying operation of one or more computer managed openings located at one or more facilities, each facility having at least one access point, an access point referring to a location containing a selectively controllable opening, the internet based access point management system comprising:

at least one computer processor;

a web server operative with the at least one computer processor and configured to receive and respond to the one or more requests from the at least one web browser;

a database server operative with the at least one computer processor; and

an application server operative with the at least one computer processor and configured to communicate with the web server and the database server for receiving and processing commands, the processing of commands comprising formulating one or more system commands for communication to the web browser by the web server;

wherein at least one of the one or more computer managed openings comprises a computer being selectively interconnected with at least one electronically controlled locking device, and wherein the selectively controllable opening is selectively lockable using at least one of the at least one electronically controlled locking device.

35. (Currently amended) The internet based access point management system of claim 33 wherein ~~the one or more computer managed openings each comprise an access point connected to~~ each electronically controlled locking device comprises a controller, and further comprising:

a file transfer protocol server operative with a computer processor and configured to communicate with the web browser for converting the system commands into a format compatible with that used by access points and for downloading the system commands to a portable device for transfer to a particular controller.

36. (Currently amended) An internet based access point management system at least partially residing on a computer readable medium and being accessible by at least one internet web browser communicating one or more requests for modifying operation of one or more computer managed openings located at one or more facilities, each facility having at least one access point, an access point referring to a location containing a selectively controllable opening, the internet based access point management system comprising:

a web server ~~operative with the at least one computer processor and~~ configured to receive and respond to the one or more requests from the at least one web browser;

a database server; and

an application server being configured to communicate with the web server and the database server for receiving and processing commands, the processing of commands comprising formulating system commands for communication to the web browser by the web

server;

wherein at least one of the one or more computer managed openings comprises a computer being selectively interconnected with at least one electronically controlled locking device, and wherein the selectively controllable opening is selectively lockable using at least one of the at least one electronically controlled locking device.

37. (Original) The internet based access point management system of claim 36 wherein the one or more computer managed openings each comprise at least one access point and further comprising:

a file transfer protocol server operative with a computer processor and configured to communicate with the web browser for converting the system commands into a format compatible with that used by the access points and for downloading the system commands to a portable device for transfer to a particular controller.

38. (Currently amended) A method of managing an access control system for a facility, the facility employing at least one computer managed opening and having at least one access point, an access point referring to a location containing a selectively controllable opening, said method comprising the steps of:

generating a request to modify operation of one or more computer managed openings which are stand-alone, network or modem based;

communicating the request to a remote computer managed opening server;

processing the request at the remote computer managed opening server in order to generate ~~and~~ an acknowledgement of the request and to generate one or more system commands;

selecting the appropriate electronic format for the one or more system commands depending upon whether the one or more computer managed openings are stand-alone, network or modem based; and

communicating the one or more system commands to the appropriate computer managed opening for modifying operation thereof.

wherein at least one of the one or more computer managed openings comprises a computer being selectively interconnected with at least one electronically controlled locking device, and wherein the selectively controllable opening is selectively lockable using at least one of the at least one electronically controlled locking device.

39. (Currently amended) The method of claim 38, wherein:

the step of generating a request comprises ~~inputing~~ inputting data to a web browser;

the step of communicating the request comprises passing the request from the web browser to a web server over the internet;

the step of processing is performed by an application server and comprises retrieving data concerning one or more computer managed openings from a data base; and

the step of selecting the appropriate electronic format is also performed by the application server and comprises selecting file transfer protocol for the system commands where the computer managed opening is stand-alone based and selecting electronic mail message format for the system commands where the computer managed opening is network or modem based.

40. (Original) The method of claim 39, wherein:

the step of communicating the one or more system commands comprises:

communicating the system commands in file transfer protocol to the web server for communication to the web browser where the computer managed opening is stand-

alone, whereupon an administrator may download and transfer the system commands to a controller; and

communicating the system commands to a mail server in electronic mail message format for communication thereof to a local mail server, the local mail server communicating the system commands to a local gateway which translates the system commands into another format for communication to one or more controllers.

41. (Original) The method of claim 40 wherein the local gateway translates electronic mail message format into a command string comprising a command identification, a length of one or more commands and at least one command.

42. (Original) The method of claim 40 wherein the electronic messages in electronic format comprises:

a subject comprising a message index; and

attached files comprising at least one command file and at least one database table file.

43. (Original) The method of claim 42 further comprises the steps of encrypting and decrypting the command file and/or the data base table file.

44. (Original) The method of claim 43 wherein the command file comprises a consecutive byte string absent delimiters.

45. (Original) The method of claim 44 wherein the consecutive byte string comprises a transaction identification, a number of commands in the consecutive byte string and a command body.

46. (Original) The method of claim 45 wherein the command body comprises a length of the command body, a command identification, computer managed opening identification, computer managed opening sub-identification and at least one command parameter.

47. (Original) The method of claim 40 further comprising the step of generating reply messages by the computer managed opening and the reply messages being in electronic mail format.

48. (Original) The method of claim 47 wherein the electronic mail format of the reply messages comprises:

a subject which comprises at least one of a transaction identification or a message index;

a contents which comprises a predefined success or failure indication; and

attached files comprising at least one database table file.

49. (Original) The method of claim 48 further comprising the steps of encrypting and decrypting the reply messages.